

CLAIMS

We claim:

1. A sport equipment for protection of the cervical spine of a user, comprising;
a helmet;
a pair of shoulder pads;
a pair of cylinders affixed to said helmet and to said shoulder pads,
a valve mounted between said shoulder pads, and
tubing joining said cylinders to said valve;
said valve being a pilot-operated valve having a threshold pressure of operation and means to allow an unrestricted flow inside said tubing when a pressure in said tubing is less than said threshold pressure, and means to block said flow when a pressure in said tubing is above said threshold pressure.
2. The sport equipment as claimed in **claim 1**, further comprising a sport vest, and said valve is mounted to a back portion of said vest.
3. The sport equipment as claimed in **claim 1**, wherein said cylinders are mounted to said helmet by means of ball and socket joints.
4. The sport equipment as claimed in **claim 3**, wherein each of said ball and socket joints has a detachable engagement comprising a retaining clip.
5. The sport equipment as claimed in **claim 3**, wherein each of said ball and socket joints has a limited sway angle.

6. The sport equipment as claimed in **claim 1**, wherein said cylinders are mounted to said shoulder pads by means of ball and socket joints.
7. The sport equipment as claimed in **claim 1**, wherein each of said cylinder is a double-rod-end cylinder.
8. The sport equipment as claimed in **claim 7**, wherein each of said cylinders is held to said helmet by means of a first ball and socket joint having a stem extending perpendicularly from a casing thereof, and is held to one of said shoulder pads by means of a second ball and socket joint having a stem extending longitudinally from a rod end thereof.
9. The sport equipment as claimed in **claim 8**, wherein each of each of said first and second ball and socket joints has a detachable engagement comprising a retaining clip.
10. The sport equipment as claimed in **claim 1** wherein each of said first and second ball and socket joints has a limited sway angle.
11. The sport equipment as claimed in **claim 1** wherein said threshold pressure of operation is 8 psi.
12. The sport equipment as claimed in **claim 1**, wherein said cylinders, said tubing and said valve form a closed circuit.
13. The sport equipment as claimed in **claim 12**, wherein said closed circuit contains vegetable oil.

14. The sport equipment as claimed in **claim 1**, wherein said valve is a two-position, spring-return, normally-open, pilot-operated valve.
15. A sport equipment for protection of the cervical spine of a user, comprising;
a helmet;
a pair of shoulder pads;
a pair of double-rod-end cylinders affixed to said helmet and to said shoulder pads,
a valve mounted between said shoulder pads, and
tubing joining said cylinders to said valve;
each of said cylinders is held to said helmet by means of a first ball and socket joint having a stem extending perpendicularly from a casing thereof, and is held to one of said shoulder pads by means of a second ball and socket joint having a stem extending longitudinally from a rod end thereof.
said valve being a pilot-operated valve having a threshold pressure of operation of about 8 psi, said valve further having means to allow an unrestricted movement of said cylinders when a pressure in said tubing is less than said threshold pressure, and means to block all flow of fluid to and from said cylinders when a pressure in said tubing is above said threshold pressure.
16. The sport equipment as claimed in **claim 15**, wherein each of said first and second ball and socket joints has a detachable engagement comprising a retaining clip.
17. The sport equipment as claimed in **claim 16**, wherein each of said first and second ball and socket joints has a limited sway angle.

18. The sport equipment as claimed in **claim 15**, further comprising a sport vest, and said valve is mounted to a back portion of said vest.
19. A sport equipment for protection of the cervical spine, comprising;
a helmet;
a pair of shoulder pads;
a pair of air bags affixed to said helmet and to said shoulder pads,
a valve mounted between said shoulder pads, and
tubing joining said air bags to said valve;
said valve being a pilot-operated valve having a threshold pressure of operation, said valve further having means to allow an unrestricted flow of air from one of said air bags to the other when a pressure in said tubing is less than said threshold pressure, and means to block all flow of air to and from said air bags when a pressure in said tubing is above said threshold pressure.
20. The sport equipment as claimed in **claim 19** wherein each of said air bags is connected to said helmet by means of a stiff brace, and each of said air bags has a curved pad on the lower side thereof for attachment to a shoulder pad of a hockey equipment.